UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS AUSTIN DIVISION

LIONRA TECHNOLOGIES LTD.,	
Plaintiff,	Case No. 1:23-cv-929
v.	JURY TRIAL DEMANDED
VMWARE, INC.,	
Defendant.	

COMPLAINT FOR PATENT INFRINGEMENT AGAINST VMWARE, INC.

This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. § 1 *et seq.*, in which Plaintiff Lionra Technologies Limited ("Plaintiff" or "Lionra") makes the following allegations against Defendant VMware, Inc. ("Defendant" or "VMware"):

INTRODUCTION

1. This complaint arises from VMware's unlawful infringement of the following United States patents owned by Plaintiff, which relate to improvements in secure computing systems: United States Patent No. 7,623,518 ("the '518 Patent"), 9,264,441 ("the '441 Patent"), and 7,302,708 ("the '708 Patent") (the "Asserted Patents").

PARTIES

2. Plaintiff Lionra Technologies Limited is a private company limited by shares organized and existing under the laws of Ireland, with its principal place of business at The Hyde Building, Suite 23, The Park, Carrickmines, Dublin 18, Ireland. Lionra is the sole owner by

assignment of all rights, title, and interest in the Asserted Patents, including the right to recover damages for past, present, and future infringement.

3. On information and belief, Defendant VMware, Inc. is a Delaware corporation with its principal place of business at 3401 Hillview Ave, Palo Alto, CA 94304. Defendant is registered to do business in the State of Texas and may be served through its registered agent Corporation Service Company d/b/a CSC – Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701.

JURISDICTION AND VENUE

- 4. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 5. This Court has personal jurisdiction over VMware in this action because VMware has committed acts within this District giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over VMware would not offend traditional notions of fair play and substantial justice. VMware maintains a place of business within the State, including at 6500 River Place Blvd, Bldg. 6, Austin, TX 78730. VMware, directly and through subsidiaries or intermediaries, has committed and continues to commit acts of infringement in this District by, among other things, importing, offering to sell, and selling products that infringe the Asserted Patent. VMware is registered to do business in the State of Texas, and has appointed as their registered agent, Corporation Service Company d/b/a CSC Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, Texas 78701, for service of process.

6. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b). VMware is registered to do business in Texas, and upon information and belief, VMware has transacted business in this District and has committed acts of direct and indirect infringement in this District by, among other things, making, using, offering to sell, selling, and importing products that infringe the Asserted Patents. VMware has regular and established places of business in this District, including at 6500 River Place Blvd, Bldg. 6, Austin, TX 78730.

COUNT I

INFRINGEMENT OF U.S. PATENT NO. 7,623,518

- 7. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 8. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 7,623,518, titled "Dynamic access control lists." The '518 Patent was duly and legally issued by the United States Patent and Trademark Office on November 24, 2009. The '518 Patent is valid and enforceable. A true and correct copy of the '518 Patent is attached hereto as Exhibit 1.
- 9. VMware makes, uses, offers for sale, sells, and/or imports certain products, including without limitation VMware SD-WAN Edge 510, Edge 510 LTE, Edge 520, Edge 540, Edge 6x0, Edge 840, Edge 2000, Edge 3x00 (the "Accused Products"), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '518 Patent. Identification of the accused products will be provided in Plaintiff's infringement contentions pursuant to the Court's scheduling order.

- 10. The Accused Products satisfy all claim limitations of one or more claims of the '518 Patent. A claim chart comparing exemplary independent claim 15 of the '518 Patent to representative Accused Products is attached as Exhibit 2.
- 11. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, VMware has injured Plaintiff and is liable for infringement of the '518 Patent pursuant to 35 U.S.C. § 271(a).
- 12. VMware also knowingly and intentionally induces infringement of one or more claims of the '518 Patent in violation of 35 U.S.C. § 271(b). At least as of the filing and service of this complaint, VMware has knowledge of the '518 Patent and the infringing nature of the Accused Products through, for example, the '518 Patent claim chart served therewith. Despite this knowledge of the '518 Patent, VMware continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website and materials cited in Exhibit 2) to use the Accused Products in ways that directly infringe the '518 Patent. For example, VMware advertises the enhanced security features provided by its VeloCloud Edges:

A thin "Edge" that is zero IT touch provisioned from the cloud for secured, optimized connectivity to your apps and virtualized services. The VeloCloud Edges are zero-touch, enterprise-class devices or virtual software that provide secure and optimized connectivity to private, public and hybrid applications; compute; and virtualized services. VeloCloud Edges perform deep application recognition, application and per-packet steering, on-demand remediation performance metrics and end-to-end quality of service (QoS) in addition to hosting Virtual Network Function (VNF) services. An Edge pair can be deployed to provide High Availability (HA). Edges can be deployed in branches, large sites and data centers. All other network infrastructure is provided on-demand in the cloud.

The VeloCloud Orchestrator provides centralized enterprise-wide configuration and real-time monitoring, as well as orchestrates the data flow into and through the SDWAN overlay network. Additionally, it provides the one-click provisioning of virtual services across Edges, in centralized and regional enterprise service hubs and in the cloud.

Ex. 3 (https://docs.vmware.com/en/VMware-SD-WAN/3.3/VMware-SD-WAN-by-VeloCloud-Administration-Guide/GUID-16C592CA-8F02-4CEF-B8FB-769A0CDA0231.html). In

addition, VMware provides users with instructions on how to configure Edges and configure firewall rules:

To provision an Edge:

- 1. In the VeloCloud Edges screen, click the New Edge button, located on the top, right corner of the VCO.
- 2. In the Provision New Edge dialog box, type a unique name for the Edge in the Name text field (see image below).
- 3. From the Model drop-down menu, select the model of the Edge you are creating.
- 4. Assign a profile to the Edge by choosing a profile from the Profile drop-down menu.
 - If an Edge Staging Profile is displayed as an option due to push activation, this profile is used by a newly assigned Edge, but has not been configured with a production Profile.
 - If a customer has a Network-based Operator Profile, then the customer can only provision
 Network-based Edges. In addition, if a customer has a Segment-based Operator Profile, then the
 customer can only provision Segment-based Edges. (For more information about Profile migration
 see, Network to Segment Migration. For more information about how to create a new profile, see
 the Configure Profiles section titled, Create a Profile).
- Ex. 4 (https://docs.vmware.com/en/VMware-SD-WAN/3.3/VMware-SD-WAN-by-VeloCloud-Administration-Guide/GUID-D583722C-9B15-444D-9B84-05BA0B1FDA94.html).

Configure Firewall Rules

Firewall rules are used to configure Allow or Deny Access Control List (ACL) rules. The rules are used to determine what traffic is allowed between VLANs or out from the LAN to the Internet. The rules can be based on applications, application categories, source IP address/port, destination IP address/port, DSCP tags or protocol. [Read more]

Ex. 5 (https://docs.vmware.com/en/VMware-SD-WAN/3.3/VMware-SD-WAN-by-VeloCloud-Administration-Guide/GUID-AD64ABD4-4388-4CCD-BC16-E993C82817CC.html). VMware provides these instructions, user manuals, and other materials knowing and intending (or with willful blindness to the fact) that its customers and end users will commit these infringing acts. VMware also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '518 Patent, thereby specifically intending for and inducing its customers to infringe the '518 Patent through the customers' normal and customary use of the Accused Products.

- 13. VMware has also infringed, and continues to infringe, one or more claims of the '518 Patent by selling, offering for sale, or importing into the United States, the Accused Products, knowing that the Accused Products constitute a material part of the inventions claimed in the '518 Patent, are especially made or adapted to infringe the '518 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use. At least as of the filing and service of this complaint, VMware has knowledge of the '518 Patent and the infringing nature of the Accused Products through, for example, the '518 Patent claim chart served therewith. VMware has been, and currently is, contributorily infringing the '518 Patent in violation of 35 U.S.C. §§ 271(c) and/or (f). For example, VMware's SD-WAN Edge 510, Edge 510 LTE, Edge 520, Edge 540, Edge 6x0, Edge 840, Edge 2000, and Edge 3x00 constitute a material part of the inventions claimed in the '518 Patent, are especially made or adapted to infringe the '518 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use, as demonstrated by the evidence in Exhibit 2.
- 14. On information and belief, Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. §287 during the relevant time period because Plaintiff, its predecessors, and any licensees did not make, offer for sale, or sell products that practice(d) the '518 Patent during the relevant time period or were not required to mark during the relevant time period.
- 15. As a result of VMware's direct infringement of the '518 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for VMware's infringement, but in no event less than a reasonable royalty for the use made of the invention by VMware, together with interest and costs as fixed by the Court.
- 16. As a result of VMware's indirect infringement of the '518 Patent, Plaintiff is entitled to monetary damages (present and future) in an amount adequate to compensate for

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VMware's infringement, but in no event less than a reasonable royalty for the use made of the invention by VMware, together with interest and costs as fixed by the Court, accruing as of the time VMware obtained knowledge of the '518 Patent.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. 9,264,441

- 17. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 18. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 9,264,441, titled "System and method for securing a network from zero-day vulnerability exploits." The '441 Patent was duly and legally issued by the United States Patent and Trademark Office on February 16, 2016. The '441 Patent is valid and enforceable. A true and correct copy of the '441 Patent is attached hereto as Exhibit 6.
- 19. VMware makes, uses, offers for sale, sells, and/or imports certain products, including without limitation VMware NSX Distributed Firewall with Advanced Threat Prevention, NSX Gateway Firewall with Advanced Threat Prevention, and NSX Advanced Threat Prevention (standalone) (the "Accused Products"), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '441 Patent. Identification of the accused products will be provided in Plaintiff's infringement contentions pursuant to the Court's scheduling order.
- 20. The Accused Products satisfy all claim limitations of one or more claims of the '441 Patent. A claim chart comparing exemplary independent claim 11 of the '441 Patent to representative Accused Products is attached as Exhibit 7.

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- 21. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, VMware has injured Plaintiff and is liable for infringement of the '441 Patent pursuant to 35 U.S.C. § 271(a).
- 22. VMware also knowingly and intentionally induces infringement of one or more claims of the '441 Patent in violation of 35 U.S.C. § 271(b). At least as of the filing and service of this complaint, VMware has knowledge of the '441 Patent and the infringing nature of the Accused Products through, for example, the '441 Patent claim chart served therewith. Despite this knowledge of the '441 Patent, VMware continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website and materials cited in Exhibit 7) to use the Accused Products in ways that directly infringe the '441 Patent. For example, VMware advertises the advanced security and monitoring features of its NSX Advanced Threat Prevention:

The VMware Approach to Preventing Advanced Threats

VMware has taken an automated, distributed and enterprise-wide approach to preventing advanced threats. The solution, the VMware Advanced Threat Prevention (ATP) package, is an add-on to the VMware NSX Distributed Firewall [2]. ATP provides protection against advanced threats. It increases fidelity, reduces false positives, and accelerates remediation while simultaneously reducing the amount of manual work that analysts must do.

Ex. 8 (https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/docs/vmware-advanced-threat-prevention-with-nsx-distributed-firewall.pdf at p. 2). In addition, VMware provides users with instructional materials, including information on configuring and administering its NSX Advanced Threat Protection. Ex. 9 (https://docs.vmware.com/en/VMware-NSX/4.1/administration/GUID-852AADD3-653F-4C1C-A10E-24D03B4084CA.html); Ex. 10 (https://docs.vmware.com/en/VMware-NSX-Network-Detection-and-

Response/9.7/Engine_Installation_Manual_9.7.pdf). VMware provides these instructions, user manuals, and other materials knowing and intending (or with willful blindness to the fact) that its customers and end users will commit these infringing acts. VMware also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '441 Patent, thereby specifically intending for and inducing its customers to infringe the '441 Patent through the customers' normal and customary use of the Accused Products.

- 23. VMware has also infringed, and continues to infringe, one or more claims of the '441 Patent by selling, offering for sale, or importing into the United States, the Accused Products, knowing that the Accused Products constitute a material part of the inventions claimed in the '441 Patent, are especially made or adapted to infringe the '441 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use. At least as of the filing and service of this complaint, VMware has knowledge of the '441 Patent and the infringing nature of the Accused Products through, for example, the '441 Patent claim chart served therewith. VMware has been, and currently is, contributorily infringing the '441 Patent in violation of 35 U.S.C. §§ 271(c) and/or (f). For example, VMware's NSX Distributed Firewall with Advanced Threat Prevention, NSX Gateway Firewall with Advanced Threat Prevention, and NSX Advanced Threat Prevention (standalone) constitute a material part of the inventions claimed in the '441 Patent, are especially made or adapted to infringe the '441 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use, as demonstrated by the evidence in Exhibit 7.
- 24. On information and belief, Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. §287 during the relevant time period because Plaintiff, its predecessors, and any licensees did not make, offer for sale, or sell products that practice(d) the '441 Patent during the relevant time period or were not required to mark during the relevant time period.

- 25. As a result of VMware's direct infringement of the '441 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for VMware's infringement, but in no event less than a reasonable royalty for the use made of the invention by VMware, together with interest and costs as fixed by the Court.
- 26. As a result of VMware's indirect infringement of the '441 Patent, Plaintiff is entitled to monetary damages (present and future) in an amount adequate to compensate for VMware's infringement, but in no event less than a reasonable royalty for the use made of the invention by VMware, together with interest and costs as fixed by the Court, accruing as of the time VMware obtained knowledge of the '441 Patent.

COUNT III

INFRINGEMENT OF U.S. PATENT NO. 7,302,708

- 27. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.
- 28. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 7,302,708, titled "Enforcing computer security utilizing an adaptive lattice mechanism." The '708 Patent was duly and legally issued by the United States Patent and Trademark Office on November 27, 2007. The '708 Patent is valid and enforceable. A true and correct copy of the '708 Patent is attached hereto as Exhibit 11.
- 29. VMware makes, uses, offers for sale, sells, and/or imports certain products, including without limitation VMware NSX (the "Accused Products"), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '708 Patent.

Identification of the accused products will be provided in Plaintiff's infringement contentions pursuant to the Court's scheduling order.

- 30. The Accused Products satisfy all claim limitations of one or more claims of the '708 Patent. A claim chart comparing exemplary independent claim 1 of the '708 Patent to representative Accused Products is attached as Exhibit 12.
- 31. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, VMware has injured Plaintiff and is liable for infringement of the '708 Patent pursuant to 35 U.S.C. § 271(a).
- 32. VMware also knowingly and intentionally induces infringement of one or more claims of the '708 Patent in violation of 35 U.S.C. § 271(b). At least as of the filing and service of this complaint, VMware has knowledge of the '708 Patent and the infringing nature of the Accused Products through, for example, the '708 Patent claim chart served therewith. Despite this knowledge of the '708 Patent, VMware continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website and materials cited in Exhibit 12) to use the Accused Products in ways that directly infringe the '708 Patent. For example, VMware advertises the advanced security and monitoring features of its NSX software:

VMware NSX

VMware NSX® is the network virtualization and security platform that enables VMware's cloud networking solution with a software-defined approach to networking that extends across data centers, clouds and application frameworks. With NSX, networking and security are brought closer to the application wherever it's running, from virtual machines (VMs) to containers to physical servers. Like the operational model of VMs, networks can be provisioned and managed independent of underlying hardware. NSX reproduces the entire network model in software, enabling any network topology—from simple to complex multitier networks—to be created and provisioned in seconds. Users can create multiple virtual networks with diverse requirements, leveraging a combination of the services offered via NSX or from a broad ecosystem of third-party integrations—ranging from next-generation firewalls to performance management solutions—to build inherently more agile and secure environments. These services can then be extended to a variety of endpoints within and across clouds.

* * *

NSX distributed and gateway advanced security capabilities² Several advanced security capabilities are available for NSX with security add-ons. These include:

- · Distributed security:
 - Distributed intrusion detection and prevention systems (IDPS)
 - Distributed malware prevention
 - Distributed network traffic analysis (NTA)
 - Network detection and response
- Gateway security URL filtering based on web categories and reputation
- · Malware detection

Ex. 13

(https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/products/nsx/vmware-nsx-datasheet.pdf). In addition, VMware provides users with instructional materials, including the NSX Reference Design Guide which contains information on deploying VMWare's NSX solutions. Ex. 14 (https://communities.vmware.com/t5/VMware-NSX-Documents/VMware-nsx-Documents/VMwar

NSX-T-Reference-Design/ta-p/2778093). VMware provides these instructions, user manuals, and other materials knowing and intending (or with willful blindness to the fact) that its customers and end users will commit these infringing acts. VMware also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '708 Patent, thereby specifically intending for and inducing its customers to infringe the '708 Patent through the customers' normal and customary use of the Accused Products.

- 33. VMware has also infringed, and continues to infringe, one or more claims of the '708 Patent by selling, offering for sale, or importing into the United States, the Accused Products, knowing that the Accused Products constitute a material part of the inventions claimed in the '708 Patent, are especially made or adapted to infringe the '708 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use. At least as of the filing and service of this complaint, VMware has knowledge of the '708 Patent and the infringing nature of the Accused Products through, for example, the '708 Patent claim chart served therewith. VMware has been, and currently is, contributorily infringing the '708 Patent in violation of 35 U.S.C. §§ 271(c) and/or (f). For example, VMware's NSX constitutes a material part of the inventions claimed in the '708 Patent, are especially made or adapted to infringe the '708 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use, as demonstrated by the evidence in Exhibit 12.
- 34. On information and belief, Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. §287 during the relevant time period because Plaintiff, its predecessors, and any licensees did not make, offer for sale, or sell products that practice(d) the '708 Patent during the relevant time period or were not required to mark during the relevant time period.

- 35. As a result of VMware's direct infringement of the '708 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for VMware's infringement, but in no event less than a reasonable royalty for the use made of the invention by VMware, together with interest and costs as fixed by the Court.
- 36. As a result of VMware's indirect infringement of the '708 Patent, Plaintiff is entitled to monetary damages (present and future) in an amount adequate to compensate for VMware's infringement, but in no event less than a reasonable royalty for the use made of the invention by VMware, together with interest and costs as fixed by the Court, accruing as of the time VMware obtained knowledge of the '708 Patent.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court enter:

- a. A judgment in favor of Plaintiff that VMware has infringed, either literally and/or under the doctrine of equivalents, the '518, '441, and '708 Patents;
- b. A judgment and order requiring VMware to pay Plaintiff its damages (past, present, and future), costs, expenses, and pre-judgment and post-judgment interest for VMware's infringement of the '518, '441, and '708 Patents;
- c. A judgment and order requiring VMware to pay Plaintiff compulsory ongoing licensing fees, as determined by the Court in equity.
- d. A judgment and order requiring VMware to provide an accounting and to pay supplemental damages to Plaintiff, including without limitation, pre-judgment and post-judgment interest and compensation for infringing products released after the filing of this case that are not colorably different from the accused products;
 - e. A judgment and order finding that this is an exceptional case within the meaning

of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees against VMware; and

f. Any and all other relief as the Court may deem appropriate and just under the circumstances.

DEMAND FOR JURY TRIAL

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Dated: August 7, 2023 Respectfully submitted,

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